

CLAIMS

WHAT IS CLAIMED IS:

- 5 1. A method for providing energy comprising the steps
of:
- a. aggregating at least two suppliers of energy into an
economic supplier unit; and
- b. supplying energy from said economic supplier unit at
10 a selected price.
2. The method of claim 1, further comprising the step
of:
- a'. associating an asking price for said energy, wherein
15 said economic supplier unit selects said asking price.
3. The method of claim 1, wherein said economic
supplier unit stores electrical energy at multiple locations.
- 20 4. The method of claim 3, wherein said multiple
locations comprise substations, factories, plants, warehouses,
office buildings, apartment buildings, building structures and
residences.

5 5. The method of claim 1, wherein said energy is
available to utility transmission companies, and wherein said
utility transmission companies immediately utilize said
energy.

10 6. The method of claim 5, wherein said utility
transmission companies purchase said energy from said economic
supplier unit.

7. The method of claim 1, wherein said energy is
available to utility transmission companies, and wherein said
utility transmission companies store said energy.

15 8. The method of claim 1, further comprising the step
of
c. transmitting said energy into a utility power grid.

20 9. The method of claim 1, wherein said economic
supplier unit collects energy from a utility power grid during

low cost periods and stores said energy for utilization at a subsequent time.

10. The method of claim 1, wherein said economic
5 supplier unit generates energy locally via an electrical generation means, and wherein said energy is stored at multiple locations for subsequent use.

11. The method of claim 10, wherein said electrical
10 generation means is selected from the group consisting of generators, solar arrays, windmills and geothermal sources.

12. The method of claim 1, further comprising the step
of monitoring the quantity of energy available from said
15 energy supplier unit.

13. A method for utilizing energy comprising the steps
of:

a. aggregating at least two users of energy into an
20 economic user unit; and

b. supplying energy to said economic user unit at a
selected price.

14. The method of claim 13, further comprising the step of:

a'. associating a bid price for purchase of said energy,
5 wherein said economic user unit selects said bid price.

15. The method of claim 13, wherein said economic user unit stores electrical energy at multiple locations.

10 16. The method of claim 15, wherein said multiple locations comprise substations, factories, plants, warehouses, office buildings, apartment buildings, building structures and residences.

15 17. The method of claim 13, wherein said energy is available to utility transmission companies, and wherein said utility transmission companies immediately utilize said energy.

20 18. The method of claim 17, wherein said utility transmission companies purchase said energy from said economic supplier unit.

19. The method of claim 13, wherein said energy is available to utility transmission companies, and wherein said utility transmission companies store said energy.

5

20. The method of claim 13, further comprising the step of

c. transmitting said energy into a utility power grid.

10

21. The method of claim 13, wherein said economic supplier unit collects energy from a utility power grid during low cost periods and stores said energy for utilization at a subsequent time.

15

22. The method of claim 13, wherein said economic supplier unit generates energy locally via an electrical generation means, and wherein said energy is stored at multiple locations for subsequent use.

20

23. The method of claim 22, wherein said electrical generation means is selected from the group consisting of generators, solar arrays, windmills and geothermal sources.

24. The method of claim 13, further comprising the step of monitoring the quantity of energy available from said energy supplier unit.

5

25. A method for supplying energy from at least one supplier to at least one user comprising the steps of:

a. offering an asking price by said at least one supplier;

10 b. offering a bid price by said at least one user;

c. posting said asking price and said bid price on a data net;

d. matching said asking price and said bid price; and

e. establishing a contract for the supply of a quantity
15 of energy when said bid price and said asking price match.

26. The method of claim 25, further comprising the step of:

f. obtaining permits for the transfer of energy over an
20 electrical grid from said at least one supplier to said at least one user.

27. The method of claim 26, further comprising the step of:

g. transmitting said energy from said at least one supplier to said at least one user via said electrical grid.

5

28. The method of claim 25, wherein said step of matching said asking price further comprises the step of:

d'. utilizing a clearinghouse.

10 29. The method of claim 25, further comprising the steps of:

f'. logging activity and accounting data of a plurality of said asking prices and a plurality of said bid prices; and

15 g'. transforming said logged activity and accounting data into a report.

30. The method of claim 25, further comprising the step of:

20 f''. marketing data derived from said bid price and said asking price.

31. A method of coordinating and controlling energy sources with energy users via data net comprising the steps of:

a. connecting suppliers of energy to users of energy
5 via electrical supply lines and communications means simultaneously;

b. ascertaining asking price for said energy and quantity of said energy available for each supplier;

c. ascertaining bid price users are willing to pay for
10 said energy;

d. commanding selected suppliers to provide said energy to an electrical grid; and

e. providing selected users with said energy from said suppliers.

15

32. The method of claim 31, further comprising the step of:

d'. synchronizing the provision of energy to said electrical grid, wherein load and supply are in balance.

20

33. The method of claim 31, wherein said communications means comprises a data net.

34. The method of claim 31, wherein said energy is purchased, stored and sold, and wherein a purchase price is less than a selling price.

5 35. The method of claim 31, wherein said energy is stored at different points along a distribution line, and wherein said distribution line comprises grid-to-grid transmission lines.

10 36. The method of claim 31, wherein said distribution line further comprises suppliers and users.

37. The method of claim 35, wherein said stored energy is delivered to said distribution line synchronized in phase,
15 frequency, voltage and modulation.

38. The method of claim 31, further comprising the steps of:

20 f. obtaining permits for transmission of said energy;
and

g. coordinating protocols for delivery and use of said energy.

39. An apparatus comprising:

at least one coordinating monitoring and control module;

at least one power conditioner;

5 at least one means for storage;

at least one automatic circuit breaker; and

at least one load.

40. The apparatus of claim 39, wherein said apparatus
10 controls at least one characteristic parameter of said energy
selected from the group of phase, frequency, voltage,
modulation, and combinations thereof.

41. The apparatus of claim 39, wherein said apparatus
15 collects energy from a utility grid during low cost periods
and stores said energy for utilization at a later time.

42. The apparatus of claim 39, wherein said apparatus
allows stored energy to be supplemented with energy from
20 secondary energy sources.

43. The apparatus of claim 42, wherein said secondary energy sources comprise at least one source selected from the group consisting of wind-powered generators, fueled generators, geothermal energy and solar photovoltaic energy.

5

44. The apparatus of claim 39, wherein said apparatus stores electrical energy at multiple locations comprising at least one location selected from the group consisting of residences, factories, plants, warehouses, office buildings
10 and apartment buildings.

45. The apparatus of claim 39, wherein said stored energy is supplied to an electric power grid.

15 46. A monitoring modular device comprising:
at least one data net;
at least one memory means for storing data;
means for communicating with other monitoring modular
devices;
20 means for displaying data;
means for self-diagnosis; and
security identification code.

47. The monitoring modular device of claim 46, wherein said monitoring modular device coordinates and controls the direction of energy flow between a utility grid and an energy user.

48. The monitoring modular device of claim 46, wherein said monitoring modular device communicates with other monitoring modular devices to facilitate selling and buying energy via a local and/or remote power grid.

49. The monitoring modular device of claim 46, wherein said monitoring modular device further meters said energy flow.

15

50. The monitoring modular device of claim 46, wherein said monitoring modular device further certifies the quantity of power being transmitted in or out.

20 51. The monitoring modular device of claim 46, wherein said monitoring modular device is programmed to handle, manage, transmit and condition energy having voltages ranging from 755,000 volts to 120 volts of alternating current.

52. The monitoring modular device of claim 46, wherein
said energy flow is scheduled as a single transaction or as a
series of repetitive prearranged and/or prescheduled
5 transactions.

53. The monitoring modular device of claim 46, further
comprising an unique identification code.

10 54. The monitoring modular device of claim 46, wherein
said monitoring modular device manages and coordinates
directional control of the transmission of power.

55. The monitoring modular device of claim 54, wherein
15 said monitoring modular device further monitors status of
power transmission.

56. The monitoring modular device of claim 46, wherein
said monitoring modular device maintains transactional data.

20

57. The monitoring modular device of claim 46, wherein
said monitoring modular device transmits transactional data.

58. The monitoring modular device of claim 46, wherein said monitoring modular device measures the amount of energy stored in a particular residence or facility for an energy supply transaction.

5

59. The monitoring modular device of claim 46, wherein said monitoring modular device monitors and controls stored energy and its rate of usage.

10

60. A method for coordinating the transmission and delivery of energy between providers and users comprising the steps of:

a. providing a signal from a purchaser in need of energy;

15

b. transmitting said signal to at least one supplier;
and

c. delivering said energy.

20

61. The method of claim 60, wherein the step of delivering said energy comprises delivery of energy via multiple paths.

62. The method of claim 60, wherein said method is automatic.

63. The method of claim 60, further comprising the steps
5 of:

d. coordinating the transfer of funds for purchases of
said energy; and

e. documenting said funds transfers.

10

64. A business method for selling and buying electrical
energy from and to multiple locations comprising the steps of:

a. accumulating energy from energy suppliers;

15 b. storing said energy; and

c. selling said energy over an electrical grid to
energy users.

65. The method of claim 64, wherein said energy users
20 have the option to set their own bid price for said energy.

66. The method of claim 64, wherein said energy
suppliers have the option to set their own asking price for
said energy.

67. The method of claim 64, further comprising the step of:

5 d. collecting funds electronically for the quantity of energy sold.

68. The method of claim 67, wherein suppliers provide and asking price and users provide a bid price, further
10 comprising the step of:

 e. allowing a clearinghouse to match said bid prices with said asking prices.

15 69. The method of claim 64, wherein said method further comprises the step of:

 d'. prearranging at least one schedule for the transmission of energy.

20 70. The method of claim 68, wherein said prearranged schedule is repetitive or cyclical in nature.

71. The method of claim 66, wherein said energy suppliers have storage batteries, and wherein said storage batteries are recharged during off-peak periods, whereby the energy stored in said storage batteries is sold to utility
5 companies during peak periods.

72. An apparatus for protection of computers or other delicate devices utilizing full sine wave inverters powered by batteries having energy stored therein, wherein said batteries
10 are interposed between said inverters and a power grid, whereby said inverters are isolated from variations at the power grid.